

Objective: Designing vehicles to crush in a certain way to protect occupants

INGREDIENTS

Empty paper towel roll

Note: the video "Understanding Car Crashes" shows the physics of car crashes, crash worthiness of cars and impact on occupants.

The video can be purchased from the Insurance Institute for Highway Safety or "might" be available free from the Oregon Mutual Insurance Group 1-800-444-6011.

Obtained from the Oregon Mutual Insurance Group

INSTRUCTIONS

- Press on the ends of the roll to show how the roll doesn't crush.
- Point out that it will crush at the weakest point.
- Place a small dimple in the roll somewhere and press on the ends again. This time the roll will crush at the dimple.

Stress: The dimples and holes in the frame, fenders, quarter panels, steering column and hood, cause the vehicle to crush away from passenger compartments. The hood crushes in the center making the hood collapse instead of going through the windshield. The frame will crush down, pushing the engine below the passenger compartment.

Teens sometimes like to do "cool" things to their car. Some things they do many affect the way the car will crush in a crash. It is important to seek professional advice before making any changes to a vehicle. Changes to a vehicle could cancel an insurance policy.